

Toledo Express Airport (ANG) Electric Distribution System

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J25 Toledo Express Airport (ANG)

Electric Distribution System

J25.1 Toledo Express Airport (ANG) Overview

The 180th Fighter Wing (FW) of the Ohio Air National Guard occupies 135.4 acres of leased land on the Toledo Express Airport (ANG), located approximately 22 miles west of Toledo, Ohio. The mission of the 180th FW is to provide combat ready F16C and support units capable of deploying world-wide in minimum response time. The 180th FW occupies 3 administrative, 13 industrial, and 7 services buildings totaling approximately 321,882 square feet with 290 full-time personnel. A unit training drill is conducted once a month and results in a surge of up to a total of 900 personnel.

J25.2 Electric Distribution System Description

J25.2.1 Electric Distribution System Fixed Equipment Inventory

The Toledo Express Airport (ANG) electric distribution system consists of all appurtenances physically connected to the distribution system from the point in which the distribution system enters the Installation and Government ownership currently starts to the point of demarcation, defined by the Right of Way. The system may include, but is not limited to, transformers, circuits, utility poles, ductbanks, and switches. The actual inventory of items sold will be in the bill of sale at the time the system is transferred. The following description and inventory is included to provide the Contractor with a general understanding of the size and configuration of the distribution system. The Government makes no representation that the inventory is accurate. The Contractor shall base its proposal on site inspections, information in the technical library, other pertinent information, and to a lesser degree the following description and inventory. Under no circumstances shall the Contractor be entitled to any service charge adjustments based on the accuracy of the following description and inventory.

Specifically excluded from the electric distribution system privatization are:

?? Airfield Lighting.

?? Parking Lot Lights.

?? Street Lights

J25.2.1.1 Description

Power is provided by Toledo Edison and enters the base and is metered at two locations. It is delivered and distributed at 12.47 kV through a varied system including both delta and wye configurations. The primary distribution system consists of the following circuits (all rated at 15 kV) in underground ductbanks: approximately 600 linear feet of 4-wire, 3-phase underground circuits, 5900 linear feet of 3-wire, 3-phase underground circuits, and 7000 linear feet of 1-wire underground circuits. The ductbanks are buried at an average depth of 3 feet and are marked with tracer wire. Additionally, there are approximately 2800 linear feet of 3-phase, 4-wire overhead circuits running through the installation. Multiple branches feed 16 three-phase pad mounted transformers ranging from 45 to 2000 kVA and 21 single-phase transformers ranging from 5 to 75 kVA. The system

includes 7 manholes, 19 overhead switches, and 20 wood utility poles. Base personnel indicate the capacity of the current system is adequate for present and future needs.

J25.2.1.2 Inventory

Table 1 provides a general listing of the major electric distribution system fixed assets for the Toledo Express Airport (ANG) electric distribution system included in the sale.

TABLE 1

Fixed Inventory

Electric Distribution System Toledo Express Airport (ANG)

Item	Size	Quantity	Unit	Approximate Year of Construction
Ductbanks				
Four 5-inch conduits		810	LF	1985
Two 5-inch conduits		1355	LF	1985
One 5-inch conduit		855	LF	1985
Two 4-inch conduits		1255	LF	1985
One 4-inch conduit		1275	LF	1985
One 2-inch conduit		330	LF	1985
Underground Circuits	AWG			
3 ph, 4-wire, 15 kV	#1/0	590	LF	1985
3 ph, 3-wire, 15 kV	#1	680	LF	1992
3 ph, 3-wire, 15 kV	#4	215	LF	1980
3 ph, 3-wire, 15 kV	#4	330	LF	1985
3 ph, 3-wire, 15 kV	#1/0	2140	LF	1991
3 ph, 3-wire, 15 kV	#1/0	1275	LF	1985
3 ph, 3-wire, 15 kV	#4/0	310	LF	1997
3 ph, 3-wire, 15 kV	#4/0	455	LF	1994
3 ph, 3-wire, 15 kV	#2 Al	470	LF	1971
1-wire, 15 kV	#2	680	LF	1992
1-wire, 15 kV	#2	215	LF	1980
1-wire, 15 kV	#2	310	LF	1997
1-wire, 15 kV	#2	455	LF	1994
1-wire, 15 kV	#2	470	LF	1971
1-wire, 15 kV	#2	2140	LF	1991
1-wire, 15 kV	#2	945	LF	1983
1-wire, 15 kV	#2	1800	LF	1983

Item	Size	Quantity	Unit	Approximate Year of Construction
Overhead Circuits	AWG			
3-ph, 4-wire, 15 kV	#4 ACSR	1085	LF	1957
3-ph, 4-wire, 15 kV	#4 ACSR	440	LF	1978
3-ph, 4-wire, 15 kV	#4 ACSR	1270	LF	1980
Transformers, 3 ph, oil filled, pad mounted	Nom kVA			
	45	1	EA	1991
	112.5	1	EA	2001
	112.5	1	EA	1993
	150	1	EA	2001
	150	1	EA	1991
	150	1	EA	1985
	225	1	EA	1971
	300	1	EA	1997
	300	1	EA	1980
	300	1	EA	1991
	300	1	EA	1965
	500	1	EA	1994
	500	1	EA	1978
	500	1	EA	1991
	750	1	EA	2001
	2000	1	EA	2001
Transformers, 1 ph, dry-ventilated, pole mounted	Nom kVA			
	5	3	EA	1997
	10	4	EA	1965
	25	3	EA	1980
	25	3	EA	1965
	37.5	2	EA	1983
	75	3	EA	1975
	75	3	EA	1978
Utility Poles	Height (ft)			
wood	30	1	EA	1975
wood	35	5	EA	1996

Item	Size	Quantity	Unit	Approximate Year of Construction
wood	40	5	EA	1985
wood	40	4	EA	1980
wood	45	1	EA	1994
wood	45	1	EA	1976
wood	45	2	EA	1985
wood	50	1	EA	1985
Switches	Type			
Overhead	600A-L	7	EA	1965
Overhead	600A-L	3	EA	1997
Overhead	600A-L	3	EA	1980
Overhead	600A-L	3	EA	1975
Overhead	600A-L	3	EA	1978
Manholes	Type			
5 ft by 6 ft by 5 ft deep	Pre-cast	1	EA	1997
5 ft by 6 ft by 5 ft deep	Pre-cast	1	EA	1992
5 ft by 5 ft by 6 ft deep	Pre-cast	2	EA	1992
11 ft by 9 ft by 8 ft deep	Pre-cast	3	EA	1992
Notes:				
AWG = American Wire Gauge				
EA = each				
LF = linear feet				
ph = phase				
kV = Kilovolt				
FT = feet				
Al = Aluminum				
Nom kVA = Nominal Kilovolt-amperes				
ACSR = Aluminum Clad Steel Reinforced				

J25.2.2 Electric Distribution System Non-Fixed Equipment and Specialized Tools

Table 2 lists other ancillary equipment (spare parts) and **Table 3** lists specialized vehicles and tools included in the purchase. Offerors shall field verify all equipment, vehicles, and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment, vehicles, and tools.

TABLE 2
Spare Parts
Electric Distribution System Toledo Express Airport (ANG)

Qty	Item	Make/Model	Description	Remarks
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None				
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TABLE 3

Specialized Vehicles and Tools

Electric Distribution System Toledo Express Airport (ANG)

Description	Quantity	Location	Maker
None			

J25.2.3 Electric Distribution System Manuals, Drawings, and Records

Table 4 lists the manuals, drawings, and records that will be transferred with the system.

TABLE 4

Manuals, Drawings, and Records

Electric Distribution System Toledo Express Airport (ANG)

Qty	Description	Remarks
1	Electrical Utility System Maps (electronic copy)	AutoCAD Release Version 2000

J25.3 Specific Service Requirements

The service requirements for the Toledo Express Airport (ANG) electric distribution system are as defined in the Section C Description/Specifications/Work Statement. The following requirements are specific to the Toledo Express Airport (ANG) electric distribution system and are in addition to those found in Section C. If there is a conflict between requirements described below and Section C, the requirements listed below take precedence over those found in Section C.

Although the duct banks are being turned over to the successful offeror, those ducts not currently used for electrical lines will be reserved for the exclusive use of the government. Additional ducts may be made available to the successful offeror at the discretion of the Contracting Officer.

J25.4 Current Service Arrangement

?? **Current Provider:** Toledo Edison

?? **Average Annual Usage (2000):** 3,769,000 kWh

?? **Maximum Monthly Usage:** 384,000 kWh (August)

?? **Minimum Monthly Usage:** 232,000 kWh (September)

?? **Peak Demand:** (?) On Peak 736.5 kW / Off Peak 894.2 kW / Off Peak Differential Billing Demand 776.0 kW

J25.5 Secondary Metering

J25.5.1 Existing Secondary Meters

Table 5 provides a listing of the existing (at the time of contract award) secondary meters that will be transferred to the Contractor. The Contractor shall provide meter readings for all secondary meters IAW Paragraph C.3 and J25.6 below.

TABLE 5

Existing Secondary Meters

Electric Distribution System Toledo Express Airport (ANG)

Meter Location	Meter Description
None	

J25.5.2 Required New Secondary Meters

The Contractor shall install and calibrate new secondary meters as listed in **Table 6**. New secondary meters shall be installed IAW Paragraph C.13 Transition Plan. After installation, the Contractor shall maintain and read these meters IAW Paragraphs C.3 and J25.6 below.

TABLE 6

New Secondary Meters

Electric Distribution System Toledo Express Airport (ANG)

Meter Location	Meter Description
None	

J25.6 Monthly Submittals

The Contractor shall provide the Government monthly submittals for the following:

1. **Invoice (IAW G.2).** The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Invoices shall be submitted by the 25th of each month for the previous month. Invoices shall be submitted to the person identified at time of contract award.
2. **Outage Report.** The Contractor's monthly outage report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to the person identified at time of contract award.
3. **Meter Reading Report.** The monthly meter reading report shall show the current and previous month readings for all secondary meters (if any). The Contractor's monthly meter reading report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Meter reading reports shall be submitted by the 15th of each month for the previous month. Meter reading reports shall be submitted to the person identified at time of contract award.

4. **System Efficiency Report.** If required by Paragraph C.3, the Contractor shall submit a system efficiency report in a format proposed by the Contractor and accepted by the Contracting Officer. System efficiency reports shall be submitted by the 25th of each month for the previous month. System efficiency reports shall be submitted to the person identified at time of contract award.

J25.7 Energy Saving Projects

IAW Paragraph C.3 Requirement, the following projects have been implemented on the distribution system by the Government for energy conservation purposes: None.

J25.8 Service Area

IAW Paragraph C.4 Service Area, the service area is defined as all areas within the Toledo Express Airport (ANG) boundaries.

J25.9 Off-Installation Sites

No off-installation sites are included in the sale of the Toledo Express Airport (ANG) electric distribution system.

J25.10 Specific Transition Requirements

IAW Paragraph C.13 Transition Plan, **Table 7** provides a listing of service connections and disconnections required upon transfer.

TABLE 7

Service Connections and Disconnections
Electric Distribution System Toledo Express Airport (ANG)

Location	Description
None	

J25.11 Government Recognized System Deficiencies

Table 8 provides a listing of system improvements that the Government has planned. The Government recognizes these improvement projects as representing current deficiencies associated with the Toledo Express Airport (ANG) electric distribution system. If the system is sold, the Government will not accomplish these planned improvements. The Contractor shall make a determination as to its actual need to accomplish and the timing of any and all such planned improvements. Capital upgrade projects shall be proposed through the Capital Upgrades and Renewals and Replacements Plan process and will be recovered through Schedule L-3. Renewal and replacement projects will be recovered through Sub-CLIN AB.

TABLE 8

System Deficiencies
Electric Distribution System Toledo Express Airport (ANG)

Project Location	Project Description
None	